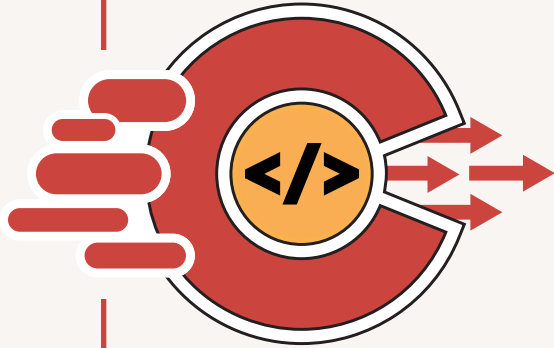




Colorado
Secretary of State



**BUSINESS
INTELLIGENCE
CENTER**

ANNUAL REPORT

2020

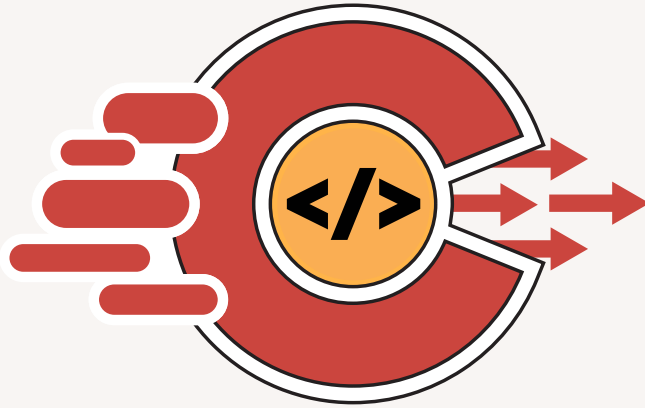


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Message from Secretary Griswold

My Fellow Coloradans,

From the Front Range to the Western Slope, in the Eastern Plains and in the Valley, our State has pulled together to support one another and find solutions to the unforeseen challenges created by the pandemic. Keeping Colorado on the road to economic recovery is essential to our office and is key to the Business Intelligence Center's (BIC) work. Like many of you, I look forward to regaining a sense of normalcy while embracing some of the innovations that, while unfamiliar at first, have led to avenues of growth.



Over the last year, our Department continued to innovate across a variety of services to better support hard-working Coloradans. The Business Intelligence Center now has a website where you will find resources for businesses, public data users, and state agencies. We offered a People's Choice Award in the Go Code Colorado competition and awarded prize money to 13 winners in both cycles and held solely virtual events; from mentor sessions to Challenge Days, we met you online. All of these changes align with our mission to modernize services and create efficiencies for all of our businesses.

After taking time to evaluate Go Code Colorado, we created two challenges within the overall competition. We introduced the Business Opportunities Challenge and the Business Solutions Challenge. The first challenge focuses competitor time, energy, and resources on generating actionable ideas that may be addressed using public data. In the second challenge, teams integrate Colorado's public data (similar to historical Go Code Colorado) into tools and analytics. The key to these new challenges is allowing teams in the Business Solutions Challenge to leverage the proposals published as part of the Business Opportunities Challenge, which enables the Colorado tech community to build off of a broader set of ideas and issues facing businesses.

At the BIC, we are focused on gathering, securing, and making available public data from state agencies and local authorities. As a storing house for data, we are able to provide Colorado's entrepreneurs with the information they need to create and grow businesses that benefit many communities across the State. Competitions like Go Code Colorado address critical issues for our State and demonstrate how innovative thinkers with access to public data can be part of big solutions. Our work, however, is never complete until we have thanked the dedicated mentors, judges, competitors, state agencies, local authorities, universities, entrepreneurs, and analysts. Together, we have helped create and foster the impactful connection of the business and the technical communities across Colorado.

We look forward to building on these relationships, and our past successes, for even greater initiatives in the year to come.



Jena Griswold
Colorado Secretary of State

About the Business Intelligence Center

The Business Intelligence Center (BIC) per Colorado revised statute 24-21-116 (3): “The Business Intelligence Center program is created within the department of state. The purpose of the program is to streamline access to public data and provide resources to make the data more useful”

The mission of BIC within the Colorado Secretary of State’s Office is to support the advancement of Colorado businesses by streamlining access to public data and providing resources to make that data more useful.

BIC accomplishes this mission by engaging in:

- **Data curation:** Identifying data sets that are of high value to the business community
- **Agency support:** Facilitating technical aspects of working with federal, state, county, and city agencies to regularly upload data sets to a central location (the Colorado Information Marketplace)
- **Data intelligence resources:** Creating data workshops and eLearning tools to help users access public data and answer business questions
- **Community engagement:** Engaging with technology, data, education, government, and business communities to put the power of public data in the hands of Colorado businesses through competitions such as Go Code Colorado

Since 2014, BIC has worked to create a robust platform for public data in the state and create awareness about the use of public data for the good of Colorado businesses. As the landscape of public data – and business – in Colorado has changed radically since BIC’s inception in 2014, 2020–2021 has been a time of action and reevaluation so that we can best serve Colorado’s needs in the future.

This 2021 Annual Report highlights BIC program accomplishments in these areas as well as the changes made to programming and additional resources to support the Colorado business and tech communities.

“Our analysis showed that with increased CRP hours the school we partnered with saw an increase in attendance and passing rates, so we hope our pilot study can help lead to greater changes in more systems. We’d like to thank our friends and family and Go Code Colorado for the opportunity and the mentorship along the way,**”**

Rachel Neve, CRPforOpportunity

“The mentors were really crucial to helping us succeed - and also the State of Colorado; **this funding is really amazing for us to make an impact...****”** **Mladen Gajic, PlasticScore**

“...Thanks to the data team, the judges and sponsors, and most of all thanks to the mentors, **I would have been dead in the water without the mentoring session,** so I appreciate all the help.**”**

James Swank, CO Cannabis

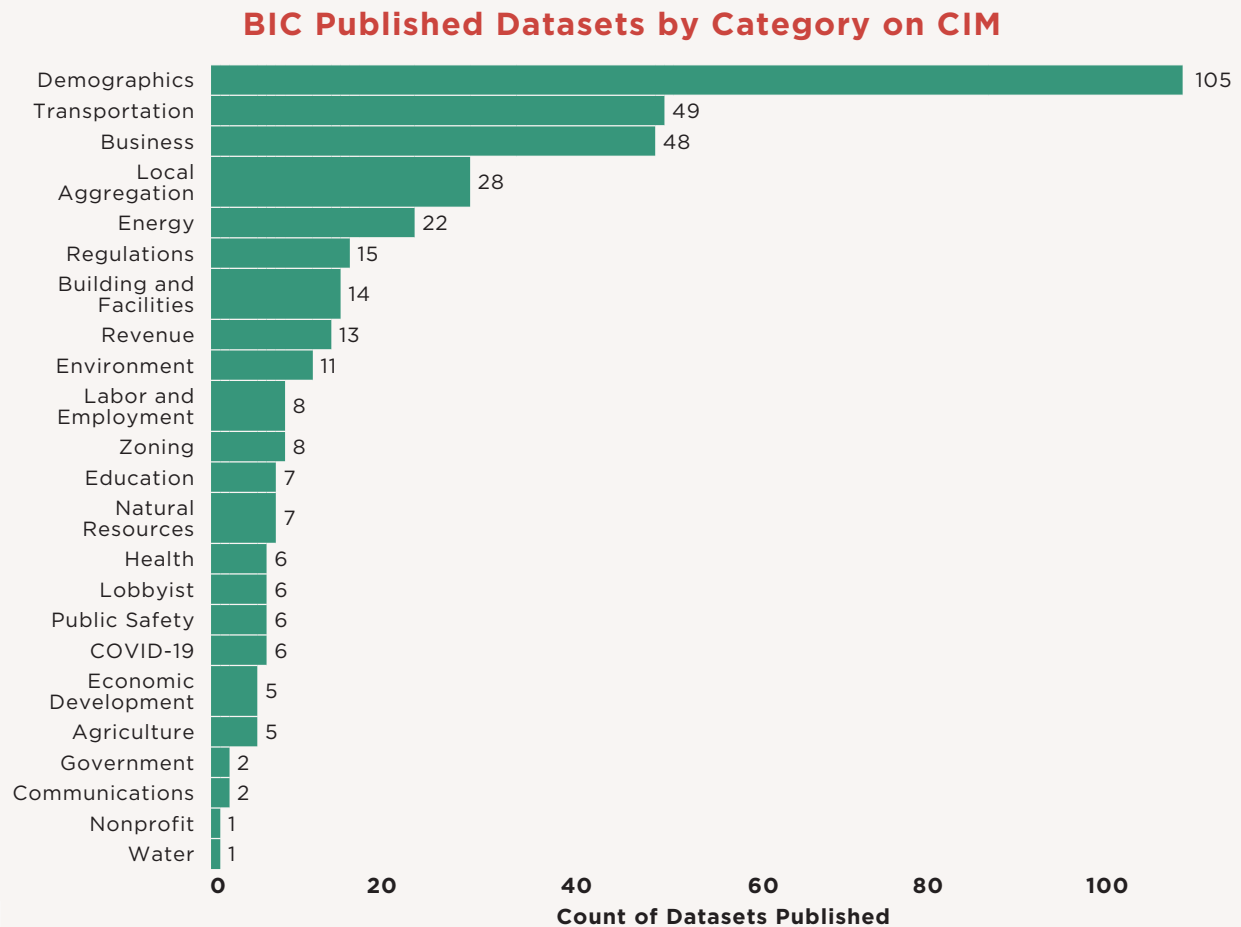
About the BIC: Agency Participation

The Business Intelligence Center works across many Colorado and federal departments, offices, and agencies. Our data sets are distinguished by their relevance to the business community, quality of metadata, and “freshness” of the update cycle from federal and state agency sources to the Colorado Information Marketplace. By working closely with federal, state, county, and city agencies, BIC has been able to publish over 350 data sets. The important relationship with these agencies means businesses and non-profits can better understand the economy and our communities through data.

Data Provider Name	# of Datasets
Adams County	5
Alternative Fuels Data Center (Division of Energy Efficiency & Renewable Energy)	1
Boulder County	5
Broomfield County	2
Bureau of Economic Analysis	2
City and County of Denver	12
City of Grand Junction	3
Clear Creek County	4
Colorado Department of Agriculture	2
Colorado Department of Higher Education	3
Colorado Department of Labor & Employment	10
Colorado Department of Personell & Administration	1
Colorado Department of Public Health & Environment	1
Colorado Department of Public Safety	9
Colorado Department of Revenue	26
Colorado Department of State	32
Colorado Department of Transportation	52
Colorado Division of Homeland Security & Emergency Management	1
Colorado Energy Office	3
Community Collaborative Rain, Hail, & Snow Network	1
Denver Public Schools	3
Department of Local Affairs	119

Data Provider Name	# of Datasets
Department of Regulatory Agencies	3
Division of Water Resources	1
Eagle County	4
El Paso County	1
Garfield County	2
Internal Revenue Service	9
Jefferson County	2
Johns Hopkins University	3
La Plata County	1
Lake County	1
Larimer County	1
Mesa County	1
National Renewable Energy Laboratory	18
Office of Economic Development and International Trade	1
Office of Information Technology & Geographic Information Systems	1
Pitkin County	1
SBA	2
Town of Breckenridge	1
Tri-County Health Department	2
United States Energy Information Administration	8
United States Geological Survey	3

About the BIC: Agency Participation



About the BIC: Public Data Education & Resources

EDUCATION & RESOURCES

In 2020–2021, BIC launched two websites: one new site to highlight the work the office accomplishes every day, bic.coloradosos.gov, and a freshly updated website for the reconfigured Go Code Colorado competition, GoCode.Colorado.Gov. BIC identified three core users to engage on the BIC site:



Business owners



Public data users



Public data providers

Each user has a separate area with educational resources and tools. Various offerings overlap as needed.

BUSINESS RESOURCES

In this section, we demonstrate the value of public data as a resource for business decision-making. Here, BIC aims to create tools and resources for the Colorado business community that teach what data is available, where it lives, and how to use it.

Tools & Resources: <https://bic.coloradosos.gov/business-resources/>

- Request A Data Workshop eForm
- Data Tools eLearning Tutorial
- Colorado Information Marketplace eLearning Tutorial

About the BIC: Public Data Education & Resources

PUBLIC DATA USERS

We regularly work with the technology, data, education, government, and business communities to put the power of public data in the hands of Colorado data users in both for-profit and not-for-profit business management.

Tools & Resources: <https://bic.coloradosos.gov/public-data-users/>

- Public Data Request eForm
- Data Discovery Tool

PUBLIC DATA PROVIDERS

BIC supports federal, state, county, and city agencies by facilitating technical aspects of regularly uploading data sets to the Colorado Information Marketplace and also helps to inform them of data sets that are of high value to the business community.

Tools & Resources: <https://bic.coloradosos.gov/public-data-providers/>

- SEO and User Experience Guidelines
- Data Publishing Standards
- Metadata Template

2021 Go Code Colorado

ONE COMPETITION.

TWO CHALLENGES.

In mid-March of 2020 the difficult decision to cancel the 2020 cycle of Go Code Colorado was made. Our organizing team shifted gears and took the opportunity to evaluate the existing program and look to the future of BIC and Go Code Colorado. After extensive program evaluation, BIC split the competition into two challenges that would better engage the business community by adding a “lighter lift” challenge focused on identifying opportunities for public data to improve businesses. In October of 2020, BIC launched the Business Opportunities Challenge, followed by the Business Solution Challenge in March of 2021.

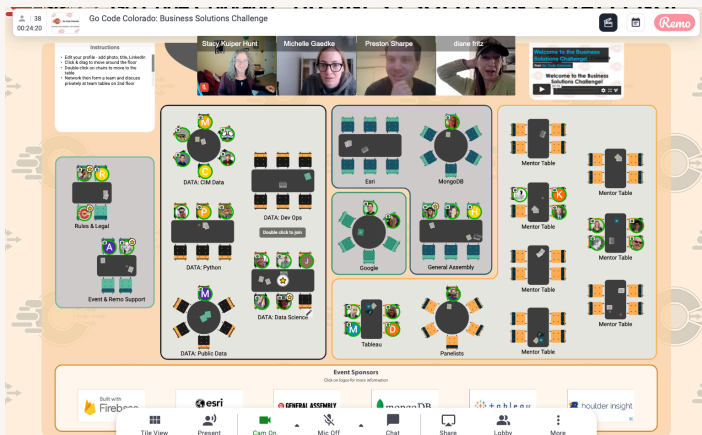
The Business Opportunities Challenge asks participants to identify actionable issues that could be solved using public data, creating value for business decision-makers throughout Colorado. In this new challenge, teams compete by presenting proposals that use public data to address Colorado business decision-makers real issues. The top 10 data-focused ideas from seven competitors took home a total of \$10,000.

The Business Solutions Challenge (similar to historical Go Code Colorado) challenges participants to develop insights and solutions that address key Colorado business issues. Teams compete to integrate Colorado’s public data into tools and valuable analytics for business decision-makers in Colorado. Six teams—three from each track—were designated as 1st, 2nd, and 3rd place winners at the final event held in May, taking home over \$80,000 in cash awards.

- **Business Analytics Track** - In the Analytics Track, teams use public data to provide valuable insights and recommendations to benefit Colorado’s businesses (both non-profit and for-profit). Examples of submissions include a data story, visualization, or white paper.
- **Business Application Track** - In the Application Track, competitors create market-relevant applications or tools using public data to provide solutions to Colorado’s businesses. Examples of submissions include a mobile or web application.

2021 Go Code Colorado

Teams competing in the Business Solutions Challenge could leverage any of the proposals submitted to the Fall's Business Opportunities Challenge or submit an original proposal. In this way, Go Code Colorado competition organizers hope to engage better both the business and tech communities in creating a more productive discourse about issues faced, and solutions developed. Finally, a new People's Choice Award was launched and awarded in each track of the Business Solutions Challenge.



GCC 2021

Go Code Colorado entered into its eighth year with one competition; two challenges. Because of the in-person event limitations, all events from both challenges were hosted fully online using a myriad of virtual tools. The lessons learned from the changes created in the 2020-2021 programming cycle have led to exciting developments and new ways of moving forward. It was never more true that necessity is the mother of

invention, and our organizer team and community rose to the occasion, creating a more robust program and extending access across all corners of Colorado.

“I was incredibly impressed with the projects submitted to the challenge. Contestants developed creative solutions to relevant problems and I have no doubt that their projects will positively impact communities in Colorado. Thank you to the leaders of Go Code Colorado for creating a fantastic challenge!”

Tyler Sym, Go Code Colorado Mentor,

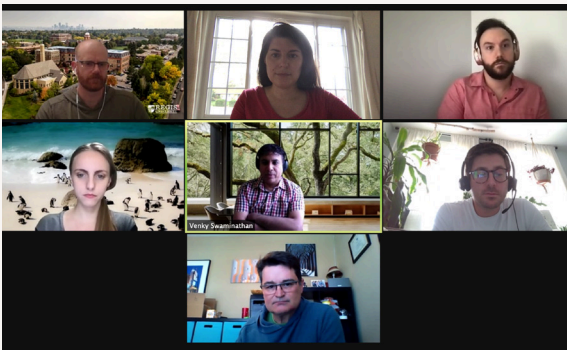
Manager, Product Insights at Charter Communications

2021 Go Code Colorado: Community Engagement

The following section summarizes the impacts of Go Code Colorado from 2014 to the present.

2014-2021 Community Engagement Eight-Year Community Summary

Event Series Participants	5,000+	Sponsors and Partners	100+
Team Participants	1,000+	Contacts	8,500+
Teams	200+	Email Subscribers	3,000+
Mentors	250+		



GCC 2021



GCC 2015



GCC 2014



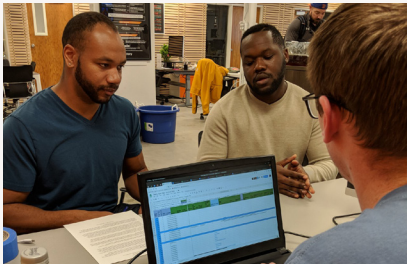
GCC 2017



GCC 2019



GCC 2016



GCC 2018

2021 Go Code Colorado: Sponsors & Tools

One of the strengths of Go Code Colorado is our partners. Partners and sponsors of Go Code Colorado offer technical tools, training, and their own valuable time to mentor our participants. For each of the tools below, we had experts available to answer questions and support the competitors while they learned how to best use these tools for both challenges.

Slack



Go Code Colorado
gocode.slack.com

- **Members: 1,000+**
- **Messages sent to date: 60,000+**

GitHub



Go Code Colorado

Colorado, USA github.com/GoCodeColorado

- **Repos: 250+**
- **Members: 450+**
- **Teams: 250+**

When creating the analysis or application for the Business Solutions Challenge, we also used Slack and GitHub and garnered free tools from the best in their field to offer to our competitors in each track.

2021 Go Code Colorado: Sponsors & Tools



General Assembly has transformed tens of thousands of careers through pioneering experiential education in today's most in-demand skills. As a sponsor, they made available to competitors a \$1,500 scholarship for GA's renowned immersive classes.



Competitors had access to **Esri's** GIS mapping software, the most powerful mapping and spatial analytics technology available.



Tableau is a world-class data visualization tool that helps people see and understand data. Competitors could access three months of free Tableau individual licenses for all competition team members for the duration of the Business Solutions Challenge.



From container-based hosting to databases and AI services, **Google Cloud** provided everything needed to get Go Code Colorado competitors up and running with \$500 worth of credit to 30 participants.



Firebase provides developers with various tools and services to help them build their apps quickly, maintain quality, and grow their user base effectively. Competitors had free access to multiple Google Firebase products, a perfect fit to quickly validate their ideas and deploy functional code.



MongoDB is the leader in helping people build amazing applications. Competitors had the option of Atlas or Enterprise as the best fit to help them gear up to build their solutions, all in one access point.

2021 Go Code Colorado: Challenge Winners

Business Opportunity Challenge



Courtney Capper

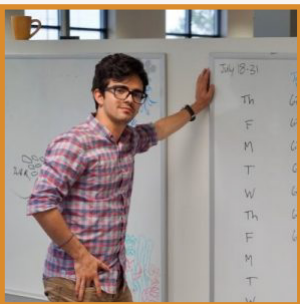
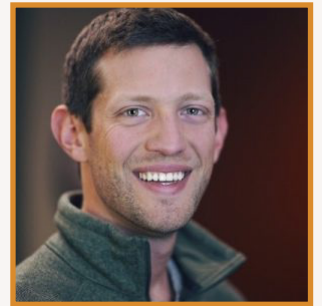
An app or website that allows teachers to share and rate lesson plans, which can be used as a secondary measure of performance by administrators.

Mladen Gajic

1. An analysis tool that measures the impacts of plastic pollution policies on societal equity.

2. A sustainability dashboard for restaurants designed to help restaurant owners and managers implement and market environmentally sustainable measures in a cost-effective manner.

3. A foodservice packaging trends and targeted sales tools will provide detailed market trends for restaurant packaging which can be broken out by restaurant type, location, materials, and much more. This information along with a targeted sales tool that allows a decision-maker to identify specific restaurants based on their existing product usage, and target them with relevant information to increase sales.



Pietro Giacomini

Project Takt would provide an open-source data dashboard for nonprofits, educational institutions, and philanthropic causes to create or enhance programs to address the divide in education for lower socio-economic groups.

2021 Go Code Colorado: Challenge Winners

Business Opportunity Challenge



Steve Malers

1. This tool enhances the Open Water Foundation's InfoMapper software and Poudre Basin Information Website to improve access to integrated instream flow data for improved water management.
2. This pitch is to enhance the Open Water Foundation's open-source GeoProcessor and InfoMapper software and Poudre Basin Information Website to create and provide public access to a statewide map layer of water supplier service area boundaries.

Janina Pohorecki

This project will take Covid infection-rate data at the county level and use epidemiological models to serve up real-time and near-future projected needs that the food delivery sector can fill.



Ed Vigil

The SecuriDad dashboard risk assessment tool would take crime data and render it on an interactive web map to enable viewing location-specific risk trends for the security industry.

Phillip Perrin/Mile High Data Viz

This idea is for businesses to identify gaps in childcare and provide resources that address childcare deserts.



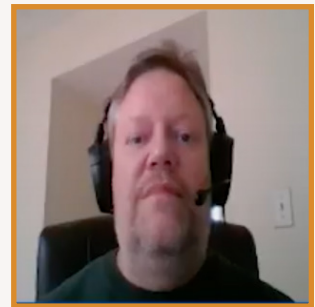
2021 Go Code Colorado: Challenge Winners

Business Solutions Challenge

People's Choice Award – Application Track

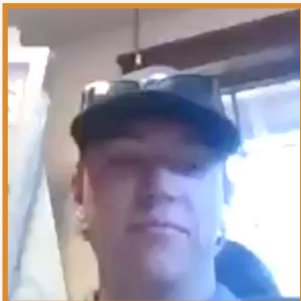
170Shuffle

A mobile app to help anyone who travels on I70 to avoid traffic and accidents while getting to their destination on time. “Plan ahead so you keep your head.”



Bill Lennon

People's Choice Award – Analytics Track



John Leitzke

WhoCARES

The Payroll Protection Program (PPP) loan was introduced to assist small businesses in paying employees, rent, and other allowable expenses during the COVID-19 pandemic. The submission analyzed loan distribution and effectiveness throughout Mesa County using data from the Colorado Information Marketplace and the Small Business Administration (SBA) websites.

2021 Go Code Colorado: Challenge Winners

Business Solutions Challenge

Business Application Track



Mladen Gajic

1st Place – PlasticScore

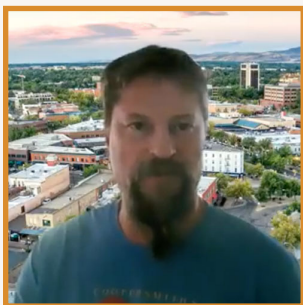
The PlasticScore dashboard provides restaurants an analysis of their current sustainability practices and gives them recommendations for how they can improve. This includes operational guides, as well as product ratings that factor in the availability of local recycling and composting infrastructure in the rating and helps avoid greenwashing.

2nd Place – COCannabis

COCannabis created an interactive web app for analysis and visualization of the Colorado cannabis industry and State population data. The app combines county cannabis revenue data, county population data, and cannabis license data to assist current or future licensees in determining when and where cannabis revenue hotspots are or may occur.



James Swank



Steve Malers

3rd Place – Open Water Foundation

This entry demonstrates the Open Water Foundation's InfoMapper software to visualize and query municipal water provider data, combining service area data from the Colorado Information Marketplace and other sources. This allows existing customers and new development to locate available water providers for a location.

2021 Go Code Colorado: Challenge Winners

Business Solutions Challenge

Business Analytics Track



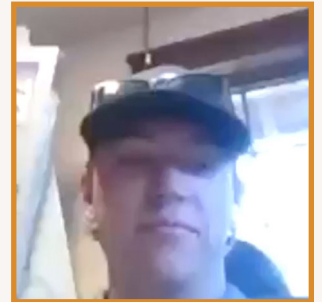
Rachel Neve

1st Place – CRPforOpportunity

The opportunity gap within the education system leads to a disparity in achievement between white students and students of color, English learners, and students with disabilities. Implementing culturally relevant pedagogy lessens the opportunity gap, but we lack the data to measure a schools' progress.

2nd Place – WhoCARES

The Payroll Protection Program (PPP) loan was introduced to assist small businesses in paying employees, rent, and other allowable expenses during the COVID-19 pandemic. This submission will analyze loan distribution and effectiveness throughout Mesa County using data from Colorado Information Marketplace and the Small Business Administration (SBA) websites.



John Leitzke



Noah LaVau

3rd Place – Mavucation

Team Mavucation compares Mesa County Valley School District 51's high school performance to schools across Colorado seeking prospects for improving teacher performance while simultaneously fostering student learning but find inconclusive results suggesting current data collection approaches may be misdirected and should be further developed.